Communications Annex (B)

State of Texas Emergency Management Plan

August 2015

This document is intended to provide guidance and is not prescriptive or comprehensive. Use judgment and discretion to determine the most appropriate actions at the time of an incident. These guidelines do not override local or regional plans, but are designed to complement those planning activities. This document does not prohibit any jurisdiction from implementing additional requirements or operating procedures within that jurisdiction.

This document complies with Homeland Security Presidential Directive 5 (HSPD-5) Management of Domestic Incidents and Presidential Policy Directive 8 (PPD-8) National Preparedness and takes into account the needs of the whole of community. The state and organizations involved operate within the principles of the National Incident Management System (NIMS) in support of the National Response Framework (NRF).

Section V.B and VI of the **State of Texas Emergency Management Plan**, in accordance with NIMS and relevant NRF guidelines, are the foundation for emergency response and recovery operations in Texas.

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Using This Document

This document is part of the State of Texas Emergency Management Plan. This section explains how this annex integrates with the plan and how and where to find additional supporting information.

This document is not designed to be read from cover to cover. Use this page to quickly find the information you need.

Review the concept of operations here.	6
Learn how key partners coordinate here.	7
Find information on communications tools, equipment and capabilities here.	15
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When you see a reference arrow (↗), look at the bottom of the page for a hyperlink to additional information from the state of Texas.

For an explanation of the acronyms and terms in this document please refer to the **State of Texas Acronyms and Terms (STAT) Book**.

This document is an annex to the State of Texas Emergency Management Plan, which is composed of a basic plan, functional annexes, hazard annexes and support annexes and is designed to integrate vertically with local, regional, tribal and federal plans.

All sections of the plan contain links to related information. Each section should be considered as part of one comprehensive document available online at http://www.txdps.state.tx.us/dem.

Overview and Purpose

This section defines the scope of this planning document including its objectives, planning assumptions and intended audience.

Goal

Outline state communications operations, including coordination, interoperability, protection, restoration, support capabilities and resources.

Objectives

- Provide operational guidance for entities that support state communications.
- Provide information to decision-makers about state communications procedures, capabilities, resources and the infrastructure that supports it.
- Describe roles, responsibilities and actions that ensure communications resource availability during incident response.
- Outline communications preparedness activities.
- Describe state communications interoperability, accessibility and redundancy.
- Provide a framework to develop tactical plans for incidents and planned events that require communications support.

Audience

- Texas State Emergency Management Council representatives
- State Operations Center (SOC) personnel
- Communications Coordination Group (CCG) members
- Disaster District Committee (DDC) personnel
- Regional communications entities
- Local emergency management coordinators
- Amateur Radio Community

Planning Assumptions

- Normal communications systems may be destroyed, degraded or rendered inoperable during a disaster.
- Damage to communications resources may affect emergency operations and influence the accessibility and mobilization of services and supplies.
- When a disaster occurs, normal modes of communication are used as available, to the degree that they remain operational.
- Even if no infrastructure damage occurs, the capacity of communications systems used by the public may be overwhelmed during disasters.
- Each organization is responsible for registering maintaining priority services.
- Local governments develop and maintain emergency communications plans.
- Local jurisdictions and state agencies are responsible for conducting tactical planning, training and exercises.
- Local jurisdictions exhaust resources before requesting additional assistance from disaster district committees.
- Local and regional mutual aid is expended before state assistance is requested.
- When state resources are depleted, assistance may be sought from other states and the federal government.

Concept of Operations

This section outlines the concept of operations for state support of communications operations.

Successful response operations assist with the rapid restoration of essential functions and protect residents from disaster hazards. In order to effectively respond to incidents around the state, personnel must be able to communicate at all times.

Communications activities involve multiple organizations. The state of Texas has more than 5,300 emergency response entities, including commercial and nonprofit organizations and partners at all levels of government.

The Texas Department of Public Safety (DPS) Law Enforcement Support Division (LESD) is the lead entity for state emergency communications planning and coordination. LESD also leads the state's Communications Coordination Group (CCG).

Strategies

This section lists state strategies used to coordinate and support communications activities. These strategies include:

- Strategy 1: Coordinate Communications Operations
- Strategy 2: Support Communications Interoperability
- Strategy 3: Support Priority Service and Priority Restoration Coordination
- Strategy 4: Provide Communications Response Resources

Each strategy describes an important component of state-level emergency communications activities in Texas.

Strategy 1: Coordinate Communications Operations

This section describes state-level emergency communications entities and coordination.

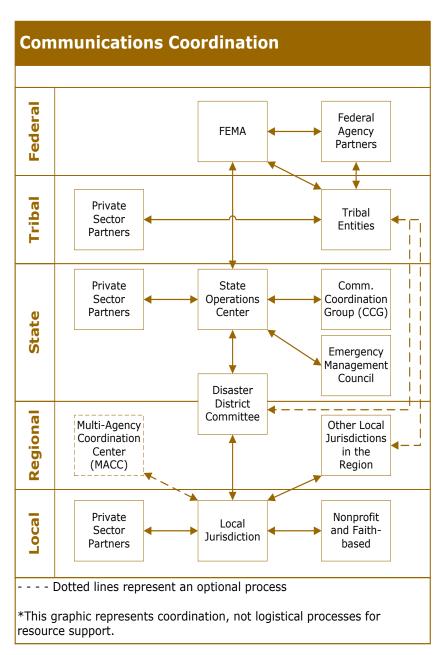
Communications activities in the state of Texas vary widely in type, size and complexity. The state supports local, regional and statewide communications with the assistance of a wide range of communications equipment, operations centers and personnel.

Disaster response originates at the local level and can expand to the federal government. When communications systems are disrupted, local jurisdictions and private sector entities respond using available resources and capabilities. When additional support is required, local authorities may seek assistance from the state.

State organizations work closely at the Disaster District Committee (DDC) level to provide support for local emergency operations.

If additional resources are required, DDCs may submit assistance requests to the State Operations Center (SOC). If the SOC is unable to support DDC operations with necessary resources, it may request support from other states or the federal government.

The chart to the right shows coordination between partners at all levels of government for response to incidents involving communications systems.



Statewide Coordination

State-level communications support is provided through coordination among multiple entities and the use of a wide range of resources.

State Operations Center

The State Operations Center (SOC) serves as a full-spectrum, continuously operating statewide communications hub that maintains contact with partner organizations throughout all phases of emergency operations. The SOC serves as the state warning point and primary state emergency coordination center.

The SOC receives and distributes notifications and updates about incidents and potential threats through various modes of communication. SOC communications systems include:

- FEMA National Radio System (FNARS)
- Landline and cellular telephone
- Satellite telephone
- Satellite radio
- Texas Law Enforcement Telecommunications System (TLETS)
- National Law Enforcement Telecommunications System (NLETS)
- Texas Warning System (TEWAS)
- National Warning System (NAWAS)
- Very High Frequency (VHF)/Ultra High Frequency (UHF) high-band radio
- RACES and MARS networks
- Video Teleconference (VTC)
- E-mail
- WebEOC

The SOC receives and manages communications assistance requests in cooperation with the Communications Coordination Group (CCG).

Communications Coordination Group

The CCG is composed of state, local, tribal, federal and private entities that facilitate coordination and collaboration to provide communications planning and operational support for emergency operations.

At the request of the SOC, the CCG can provide support for communications infrastructure and tactical operations if an emergency has exceeded the capabilities of local first responders or if state-level communications coordination is required.

When activated, the CCG Command Center is hosted at Camp Mabry, and a CCG representative is assigned to the SOC. Camp Mabry maintains continuous daily communications operations for the Texas Military Forces (TXMF) regardless of CCG activation status.

[→] For more information about the state's warning capabilities, refer to the Warning Annex (A).

The CCG maintains memorandums of understanding (MOU) and State Satellite Initiative Policies with local jurisdictions and state agencies. These MOUs can assist with augmenting communications resources during response activities.

The CCG consists of members selected by the Texas Division of Emergency Management (TDEM), including representatives from:

- Texas Military Forces (TXMF)
- Texas Department of Public Safety (DPS)
- Federal Emergency Management Agency (FEMA)
- Federal agencies that comprise emergency support function (ESF)-2
- Telecommunications industry representatives
- Electric and gas utility representatives
- National Guard Joint Continental United States Communications Support Environment
- National Guard Bureau (NGB)
- Amateur radio groups
- Texas A&M Forest Service (TFS)
- Texas Department of Transportation (TxDOT)
- Texas General Land Office (TGLO)
- Texas A&M Engineering Extension Service (TEEX)
- Public Utility Commission of Texas (PUC)
- Railroad Commission of Texas (RRC)
- Texas Department of State Health Services (DSHS)
- The Judicial Branch of state government
- Texas Association of Regional Councils
- U.S. Air Force Auxiliary-Civil Air Patrol (CAP), Texas Wing
- Trauma service area (TSA) regional advisory councils (RAC)
- State agencies and local jurisdictions affected by the emergency
- Other entities, as determined by TDEM

Functions and capabilities of the CCG include:

- Tracking available commercial, military and government communications resources
- Coordinating with commercial vendors to assist in prioritizing restoration of services
- Reviewing requests for communications assistance submitted to the SOC
- Assisting in assigning mission requests to the appropriate entities
- Providing guidance and recommendations on functional requirements
- Providing subject matter experts for first responder communications assistance
- Operating a Network Operations Center to coordinate the use of the State Satellite Initiative
- Serving as a liaison between communications stakeholders at all levels of government
- Reviewing information to verify functions, resources and compliance with statutory quidance
- Fostering communication, information sharing and working relationships with federal emergency planning representatives

The CCG prepares and mobilizes support capabilities as needed, based on the emergency readiness and response levels described in the table below.

Response Level	Conditions	Activities
4	Normal conditions	 Review, evaluate and update operating procedures Update call lists Train personnel
3	Increased readiness conditions	 Place CCG members on alert as needed, to ensure personnel are ready to respond Conduct incident-specific planning
2	Escalated response conditions	Activate the CCG, if requiredStaff the CCG Command Center at Camp Mabry as needed
1	Emergency conditions	 Assign personnel to the SOC and the CCG Command Center at Camp Mabry Perform actions to accomplish mission assignments

Amateur Radio Group

Amateur radio operators offer important conduits for relaying information to response entities and personnel when other forms of communications have failed or have been disrupted. There are over fifty thousand licensed amateur radio operators in Texas and several thousand who have received emergency management training and certifications. These operators can provide pre-planned and hoc communications networks in support of emergency operations.

Amateur radio operators provide a wide range of communications capabilities. The most common is voice communications using High Frequency (HF), Very High Frequency (VHF) or Ultra-High Frequency (UHF) capabilities. Amateur radio operators also provide data links for the transmission of Incident Command System (ICS) forms and data in a point-to-point mode or through radio-to-internet linking in areas where there are outages.

The Amateur Radio Group provides the CCG with subject matter expertise on amateur radio systems and assists with the mobilization of auxiliary radio volunteers to support emergency management at all levels. Group members consist of Military Auxiliary Radio Systems (MARS), state Radio Amateur Civil Emergency Service (RACES) and Amateur Radio Emergency Services (ARES) representatives. Additional liaisons can be incorporated with operators supporting other organizations like the National Weather Service (NWS), American Red Cross (ARC), The Salvation Army (TSA) and other volunteer organizations. This ensures a unity of effort with voluntary organization response.

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¹ For more information on the National Emergency Communications Plan (NECP), refer to the <u>U.S. Department of Homeland Security National Emergency Communications Plan</u> website.

The SOC manages the state's Radio Amateur Civil Emergency Service (RACES) through the operation of the RACES database, operator training and the provision of operator go-kits.

The table below lists amateur radio groups, their capabilities and the entities they support.

Amateur Radio Group	Radio Frequency Capabilities	Provides Support To
Amateur Radio Emergency Service (ARES)	HFVHFUHF	City and county Emergency Operations Centers (EOC)Hospital and medical sites
Military Auxiliary Radio System (MARS)	• HF	TXMFCCG Amateur radio leads
Radio Amateur Communications Emergency Services (RACES)	HFVHFUHF	SOCDisaster districts and DPS regionsCounty EOCs

Regional Coordination

The state provides regional communications support through the coordination of strategically located personnel and resources.

Disaster District Committees

When communications support is required, local jurisdictions can request state assistance through Disaster District Committees (DDC). DDCs consist of representatives from state entities and organized volunteer groups within the disaster district.

Each DDC serves as the state's emergency management organization for that district. The Texas Department of Public Safety (DPS) Highway Patrol commanding officer of each district serves as chair of the DDC. DDC representatives assist the DDC Chair by

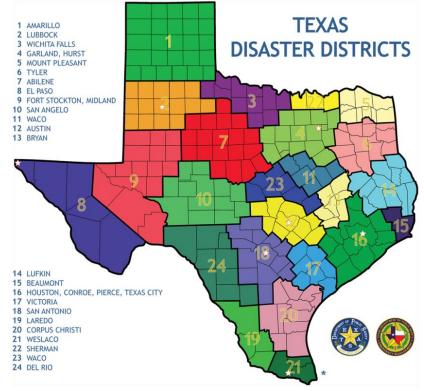


Figure 1 A map showing each of the disaster districts that DPS communications offices support.

providing resources and guidance. If additional support is required, DDCs submit a State of Texas Assistance Request (STAR) to the SOC.

DPS Communications

DPS personnel staff 24-hour communication centers to support disaster districts. DPS – Law Enforcement Support Division (LESD) Public Safety Communications Service (PSCS) operates DPS communication centers. Communication centers are equipped with a variety of primary, alternate and redundant telecommunications capabilities.

Redundant systems ensure that coordinated response operations can continue even if failures exist in one or more network components. Communications systems available at these offices include:

- Satellite telephone systems
- Texas Law Enforcement Telecommunications System (TLETS)
- National Law Enforcement Telecommunications System (NLETS)
- Texas Warning System (TEWAS)
- VHF/UHF high-band radio system
- Landline and cellular telephone
- Video Teleconference (VTC)
- E-mail
- WebEOC

Mobile Communications Command Program (MCCP) and Mobile Command Posts

LESD has the capability to operate mobile command posts. When requested, these mobile units are dispatched to disaster sites to serve as field operation coordination and control centers and to provide a communications link to the DPS communications system. DPS operates mobile communications platforms and maintains strategically placed deployable communications equipment throughout the state.

The CCG can dispatch radio-equipped vehicles to the disaster area to assist field operations and establish or augment emergency communications in support of the DDC.

Mobile Communications Command Program (MCCP) is a supply of communications resources established by DPS and supplemented by TXMF. The resources are strategically positioned throughout the state to quickly respond to incidents that require communications support. The MCCP consists of communications trailers, Site on Wheels (SOW), vans, radios and other mobile communications assets. DPS is responsible for the purchase of MCCP resources.

Public Safety Answering Points

A public safety answering point (PSAP) is an emergency call center that usually offers 911 services. PSAPs are operated by local county sheriff's offices or municipal police departments.

If requested, the state can assist PSAPs with communications trailers or other telecommunications resources during widespread outages.

Mobile Satellite Talkgroups

National, statewide and regional mobile satellite (MSAT) talkgroups are used by Texas emergency response entities. The talkgroups are internal communications channels with access to a predefined group of MSAT radio users.

The Satellite Mutual Aid Radio Talkgroup (SMART or SMRT) provides public safety agencies with regional, state and federal communications during disasters or large-scale planned events. Texas Satellite Mutual Aid Radio Talkgroup (TXSMRT) is a statewide mutual aid talkgroup for communication among Texas emergency response entities and private sector partners. The interagency talkgroup (INAGY) is designated for government agencies.

The Texas Statewide Interoperability Channel Plan (TSICP) provides a table of MSAT talkgroups available for use by Texas public safety agencies.²

Mutual Aid

Mutual aid agreements with neighboring jurisdictions may allow local jurisdictions to manage incidents without state assistance.

Mutual aid resources are recorded in the Communications Assets Survey and Mapping (CASM) and Texas Regional Response Network (TRRN) databases. These databases provide the ability for public safety entities to coordinate provision of communications resources.

On-Scene Coordination

Communications support at the site of an incident is coordinated with the assistance of various communications channels, resources and deployable teams.

Communications Unit Leader

LESD, TxDOT and TFS can provide communications unit leaders (COMLs) to all hazards incident management teams (IMT). COMLs are the on-scene frequency managers who assign specific radio channels to on-site response personnel.

Requests for COMLs are made using the State of Texas Assistance Requests (STAR).

District Coordinator

TDEM District Coordinators (DCs) are the division's field response personnel stationed throughout the state. Their role includes coordinating state emergency preparedness activities, response, and recovery operations within their disaster district. DCs deploy to incident sites to assess damage, identify urgent needs, advise local officials regarding state assistance and coordinate deployment of state emergency resources to assist local responders.

² For more information on MSAT talkgroups, refer to the <u>Texas Statewide Interoperability</u> <u>Channel Plan</u>.

Communications Emergency Operations Team

LESD maintains four Communications Emergency Operations Teams (CEOT) that can provide resources and technical expertise to LESD and CCG resources at incident sites. CEOTs are strategically located throughout the state. Each CEOT provides communications personnel, technicians, and COMLs, and has access to mobile communications trailers and field support units (FSU) equipped with communications and emergency response equipment.

Interoperability Channels

The incident commander's incident communications plan designates interoperability channels for on-scene communications.

The incident commander can reassign interoperability channels for each operational period, as required to best support emergency operations. Additional information can be found in *Strategy 2: Support Communications Interoperability*.

The table below describes the state's interoperable communications channels that assist on-scene first responders with emergency communications between multiple agencies.

Type Channels	Description	
VHF 16	VHF calling/tactical/mobile/portable/repeater channels	
UHF 4	UHF mobile/portable/repeater channels	
700 MHz 31	700 MHz mobile/portable/tactical/repeater channels	
800 MHz 8	NPSPAC 800 channels	
800 MHz 5	NPSPAC border area channels with associated incident temporary repeater channels	
MSAT 17	MSAT talkgroups	

Accessible Communications

The state has providers and contracts in place to ensure necessary auxiliary aids and services are provided to individuals with communication disabilities working in the State Operations Center (SOC) and Disaster District Committees (DDC). Services can include American Sign Language (ASL) interpreters, Communication Access Real-time Translation (CART) and qualified readers among other aids.

When additional accommodations are required at a DDC, a State of Texas Assistance Request (STAR) can be submitted to the SOC for processing. Purchase orders can be placed when the SOC requires accessible communications services.

Communications Tools

The table below describes the communications tools used by the state for disaster response.

Communications Type	Description
Land Mobile Radio (LMR) System	 Wireless communications system used with portable and mobile radios. Can be independent or connected to fixed systems.
National Law Enforcement Telecommunications System (NLETS)	 Computerized message switching system of state law enforcement agencies with criminal justice-related information. Provides National Weather Service (NWS) products including watches and warnings to the SOC.
National Public Safety Planning Advisory Committee (NPSPAC) Spectrum	 Limited, area-wide 800 MHz band radio frequencies Provides two-way communications in support of mutual aid agreements. Connects an Area Warning Center (AWC) with city, county, state, federal, military, law enforcement and criminal justice agencies in Texas. Supplements the warning network's primary "voice-only" system.
National Warning System (NAWAS)	 24-hour, nationwide, dedicated, multiple-telephone-line warning system. Provided by the Federal Emergency Management Agency (FEMA) and operated by North American Aerospace Defense (NORAD).
Satellite Broadband System	 State-managed commercial satellite broadband network. Provides wireless access to the internet through digital satellite transmission. DPS verifies agencies and establishes signed State Satellite Initiative Policies.
Texas Law Enforcement Telecommunications System (TLETS)	 Statewide telecommunications network. Connects the State Warning Point (SWP) with city, county, state, federal, military, law enforcement and criminal justice agencies in Texas. The warning network's primary "textual hard copy" system.
Texas Warning System (TEWAS)	State-level extension of NAWAS.The warning network's primary "voice only" system.
WebEOC	 Internet-based critical information system. Captures State of Texas Assistance Requests (STAR). Provides a standard incident reporting platform. Shows the status of emergency operations across the state. Available to partner organizations.

Communications EquipmentThe following table describes the various types of equipment that provide for the state's communications capabilities.

Equipment	Description
Control Station	 Mobile radio with an AC power supply and in a fixed location with a fixed antenna. Communicates with repeaters the same as portable and mobile radios.
Conventional Radio System	 Uses dedicated frequencies for individual users.
Gateway	 Translates communications between multiple, disparate networks to allow for interoperability. Can connect wireless and wired networks.
Hard-line	Transmits information through a cable.Conventional telephone-style system.
Mobile Radio	More power and range than portable radios.Usually mounted in a vehicle.Higher channel capacity
Portable Radio	Handheld, wireless and self-contained communication units.Low-powered.
Repeater	 Provide range extension land mobile radios (LMRs). Stations that receive on one frequency and repeats the signals on another frequency.
Satellite Telephone	 Wireless radiotelephone that relies on radio transmissions through satellites.
Talkgroup	 Electronic location where predefined users can communicate with each other.
Trunked Radio System	 A system that increases capacity on a given frequency. Allows for frequencies sharing by many users. Computer-controlled

Communications Frequencies

Radios transmit information through the use of radio frequencies. Emergency response entities usually communicate on frequencies between 30 and 900 MHz The table below describes the most common types of radio frequencies in use in the state of Texas.

Radio Frequency	Description
700 MHz	 All 700 MHz interoperability channels are used as multi-discipline, multi-agency public safety calling channels for public safety agencies. Designated for interoperable 700 MHz communications between mobile/portable radios and base stations, temporary base stations, and on-site incident command.
800 MHz	 First responder radio systems used by police, firefighters and emergency medical technicians operate in several portions of this band. Used by commercial wireless carriers and private radio systems.
HF	 Radio spectrum from 3 to 30 MHz Used by FEMA, amateur radio groups, Texas Military Forces and various other organizations.
VHF	138 MHz to 174 MHz for public safety.Used by many public safety agencies throughout Texas.
UHF	 406 MHz to 512 MHz for public safety. No longer widely used in the state. Used by amateur radio groups.
Microwave	Frequencies above 2 GHz.4.9 GHz is designated for public safety by the FCC.
MSAT	Satellite-based mobile telephony service.Provides nationwide communications capabilities.

Strategy 2: Support Communications Interoperability

This section describes the structures to coordinate communications interoperability between public safety responders.

For incidents involving multiple organizations or jurisdictions, communications interoperability is critical. Communications systems that improve interoperability among all levels of government, the private sector and non-governmental organizations promote coordination and effective operations.

Communications Interoperability Levels

The current Texas Statewide Communications Interoperability Plan (SCIP), Texas Statewide Interoperability Channel Plan (TSICP) and Regional Interoperable Communications Plans (RICP) help meet the five levels of interoperability guidelines defined by the Department of Homeland Security SAFECOM program.

The levels of communications interoperability are described in the table below.

Level	Description
1	The lowest level of interoperability, which is accomplished by physically exchanging radios to communicate with other agencies.
2	Minimal interoperability, which is accomplished with the use of gateway devices that electronically interconnect two or more disparate radio systems.
3	Mid-range interoperability through the use of shared channels.
4	Improved interoperability through the use of shared proprietary systems.
5	The optimal level of full interoperability through the use of Project 25 (P25) standards-based shared systems.

Texas Statewide Communications Interoperability Plan

The Texas Statewide Communications Interoperability Plan (TSCIP)³ is a strategic planning tool for statewide interoperable communications. Texas has adopted a system-of-systems approach to expand statewide interoperable voice radio communications.

The system-of-systems structure allows for regional interoperability in voice radio communications. Regional systems continue to operate independently, with the ability to connect to a network of resources by communicating freely with other regions and agencies through a state-hosted gateway. Each of the 24 Councils of Governments (COGs) across the state has developed high-level implementation plans, which together form the statewide interoperable communications system.

³ For more information on Texas interoperability plans, refer to the <u>Texas Statewide</u> <u>Communications Interoperability Plan (SCIP)</u>.

The state has adopted the Project 25 (P25) suite of standards for digital radio to strengthen the system-of-systems approach. A P25 compliant radio can communicate with any other manufacturer or vendor radio that has the same P25 certification.

Texas Statewide Interoperability Channel Plan (TSICP)

The Texas Statewide Interoperability Channel Plan (TSICP)⁴ provides guidance for interagency radio communications that use VHF, UHF, 700 MHz and 800 MHz radio equipment.

The state of Texas has licensed frequencies for mutual aid channels

oach.

Figure 2 Visual concept of the system-ofsystems regional approach.

listed in the TSICP for all agencies providing public safety services in the state. The TSICP prioritizes interoperability channels by:

- Emergency or urgent operations involving imminent danger to life or property
- Disaster or extreme emergency operations requiring extensive interoperability and interagency communications
- Special planned events
- Joint training exercises
- Interagency and enroute communications in accordance with local and regional policies and procedures.

Texas Department of Public Safety (DPS) maintains the licenses for the interoperability frequencies and issues updates to the TSICP.

Regional Interoperable Communications Plans (RICP)

Each RICP⁵ is designed to coordinate the state and regional communications interoperability plan with the National Emergency Communications Plan. Each of the 24 Texas Councils of Governments (COGs) has completed a RICP. RICPs include strategic-level planning with equipment requirements, policies, procedures and training to achieve region-wide interoperability.

Texas state agencies that provide public safety services are integral partners in regional communications plans.

⁴ For more information on the TSICP, refer to the Texas Interoperable Communications Coalition's <u>Statewide Communications Interoperability Plan (SCIP)</u> website.

⁵ For more information on the RICP, refer to the Texas Interoperable Communications Coalition's <u>Regional Interoperable Communications Plan (RICP)</u> website.

Strategy 3: Support Service Prioritization and Restoration

This section describes the programs that support the successful continuation of communications when service prioritization or restoration is needed.

High demands are placed on telecommunications services during large-scale incidents. This can lead to networks becoming overwhelmed, which may delay or disrupt critical communication between responding entities.

The state coordinates with the Federal Communications Commission (FCC), the Office of Emergency Communications (OEC) and private sector entities to prioritize telecommunications services and restore critical circuits. This coordination assists emergency responders and increases the likelihood that critical communication can occur.

Prioritizing Service

Several state agencies maintain agreements with Government Emergency Telecommunications Service (GETS) and Wireless Priority Service (WPS). GETS and WPS are communications priority service programs available to authorized government and industry personnel. The Department of Homeland Security Office of Emergency Communications (OEC) division provides both services.

During an emergency, the public switched telephone network (PSTN) reserves capacity for outbound calls from the affected area. GETS gives authorized callers access to the reserved capacity for inbound and outbound calls. WPS provides priority access across the cellular network, similar to GETS.

Restoring Service

Several state agencies also maintain agreements with Telecommunications Service Priority (TSP). Telecommunications Service Priority (TSP) is a FCC program that directs telecommunications service providers to restore critical lines following a disruption of service. The program gives preferential treatment to public safety providers enrolled in the program.

The Communications Coordination Group (CCG) works with the Public Utility Commission of Texas (PUC) through the Infrastructure Branch in the State Operations Center (SOC) to expedite restoration of services within affected areas. The CCG and PUC use the information from companies in the impacted area to provide damage assessments of commercial telecommunications.

Telecommunications service providers, including conventional circuit-switched and wireless communications companies are responsible for notifying the state of the status of their facilities. In turn, the PUC monitors the status of plans and actions of commercial telecommunications companies to restore service within affected areas and reports the status to the CCG.

Strategy 4: Provide Communications Response Resources

State agencies provide communications resources in a variety of ways. This section outlines state communications capabilities used to respond to disasters in Texas.

Based on needs and operational capabilities state assistance may consist of technical guidance, on-scene needs assessment, administrative support, and deployment of personnel and equipment engaged in communications support operations. The following table shows some of the resources the state may use.

State agencies' initial expenditure of money in response to an emergency, imminent disaster, or recovery from a catastrophic incident should come from funds regularly appropriated by the legislature. If a state agency requires additional assistance they may contact the Texas Division of Emergency Management (TDEM) to pursue other available options.

The State Emergency Management Council (SEMC) assists TDEM in identifying, mobilizing and deploying state resources.

Response Resources

The chart below summarizes the resources which may be used to respond to incidents in the state of Texas.

Entity	Resource	Use
Communications Coordination Group	Personnel	To support the incident management team with credentialed individuals with communications leadership and technical skills.
	Private Sector and Amateur Radio Partners	To provide interagency collaboration among state, local, tribal, federal and private entities; to facilitate coordination and collaboration to afford communications planning and operational support to disaster response operations; to deliver tactical and infrastructure support to communications systems if an emergency has exceeded the capabilities of local first responders.
	Statewide Satellite Data Services	To provide dedicated communications network bandwidth for secure emergency

Entity	Resource	Use
		communications for state and local agencies.
	Mobile Communications Vehicles	To support communications systems in areas where the communications infrastructure is limited or inoperable.
Public Utility Commission of Texas	Communications damage assessment information	To maintain information on communications damage assessments.
Texas A&M Engineering Extension Service	Tent-based mobile command post	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
	VHF/UHF communications systems and repeaters	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
	Personnel	To provide mobile and fixed-site communications support.
Texas A&M Forest Service	Mobile Command Posts	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
	Personnel	To support the incident management team with credentialed individuals with communications leadership and technical skills.
	Mobile Interagency Coordination Center	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
	Satellite radio/telephones (portable deployment)	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
	Satellite data system (portable with generator)	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.

Entity	Resource	Use
	Portable VHF repeaters	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
	Portable Gateways	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
	UHF mobile radios	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
	VHF portables (NB) (packaged in a kit)	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
	VHF portables (WB) (packaged in a kit)	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
Texas Commission on Environmental Quality	FEMA Type 1 Mobile Command Post	To support communications systems in areas where the communications infrastructure is limited or inoperable.
Texas Department of Criminal Justice	VHF/UHF radio communications system	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
Texas Department of Information Resources	Cellular telephones	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
	Satellite Telephones	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
Texas Department of Public Safety - Law Enforcement	Mobile Communications Vehicles	To support communications systems in areas where the communications infrastructure is limited or inoperable.
Lindicement		

Entity	Resource	Use
Support Division		
	Emergency Response Vehicle (ERV)	To support communications systems in areas where the communications infrastructure is limited or inoperable.
	Mobile Command Trailers and Field Support Units (FSU)	To support communications systems in areas where the communications infrastructure is limited or inoperable.
	Portable VHF Radio Cache	To improve the interoperable communications in rural areas or areas with damaged radio infrastructure.
	Portable 700/800 MHz Radio Cache	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
	Radio Site on Wheels	To support communications systems in areas where the communications infrastructure is limited or inoperable.
	Portable Gateway Units	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
	Portable VHF Repeaters	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
	Inflatable towers	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
Texas Department of State Health Services	Digital, VHF/UHF Transceiver (HAM), HF/VHF/UHF Mobile Radios	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
	Satellite voice	To assist the communications systems response in rural areas or areas with damaged radio

Entity	Resource	Use
		infrastructure.
	Cellular voice and data	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
	GPS	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
	Fixed and Portable MSAT	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
	Marine HF Radio	To assist the communications systems response in rural areas or areas with damaged radio infrastructure.
	Communications Trailer with Tow Vehicle	To support communications systems in areas where the communications infrastructure is limited or inoperable.
Texas Department of Transportation	All TxDOT resources	Availability is contingent upon tasking for internal TxDOT use.
	Houston District Mobile Command & Communications Trailer	To provide mobile command and communications support.
	TRF Mobile Response Trailers	To provide emergency response primarily related wildfires equipped with firefighting equipment and basic communications ability.
	TRF Mobile Communications Vehicle	To provide mobile communications support including COML and COMT abilities.
	Personnel	To support the incident management team with credentialed individuals (COMT, COML) with communications

Entity	Resource	Use
		leadership and technical skills.
	Portable VHF repeaters	To improve interoperable communications in areas with damaged radio infrastructure.
	Portable VHF and 700/800Mhz trunking radios	To improve interoperable communications in areas with damaged radio infrastructure.
	Portable Gateways	To improve interoperable communications in areas with damaged radio infrastructure.
	VHF "suitcase" base stations (packaged in cache kits)	To improve interoperable communications in areas with damaged radio infrastructure.
	Inflatable tower and "push up" antenna masts	To improve interoperable communications in areas with damaged radio infrastructure.
Texas Division of Emergency Management	Satellite phones	To assist the communications systems response in rural areas or areas with limited radio infrastructure.
	Satellite radio/telephones (portable deployment)	To assist the communications systems response in rural areas or areas with limited radio infrastructure.
	Satellite systems	To assist the communications systems response in rural areas or areas with limited radio infrastructure.
	VHF/UHF high-band radio system, HAM, HF/VHF/UHF (vehicle-mounted and portable go kits)	To assist the communications systems response in rural areas or areas with limited radio infrastructure.
	FEMA National Radio System (FNARS)	To provide backup communications between the SOC and FEMA Regional Operation Center.
Texas General Land Office	Mobile Command Trailer	To support communications systems in areas where the communications infrastructure is

Entity	Resource	Use
		limited or inoperable.
	Satellite system mobile command trailer	To support communications systems in areas where the communications infrastructure is limited or inoperable.
	Portable radios	UHF/VHF/700/800MHz radio system mobile command trailer
	Marine bandwidth radio	Boat-installed radio
	Cellular phones	AT&T and Verizon phones
Texas Military Forces	TXMF Network Control Center	To support the CCG operations.
	Communications Trailers/Teams	To support communications systems in areas where the communications infrastructure is limited or inoperable.
	Repeater deployment team(s) with VHF Analog/Digital Repeaters	To support communications systems in areas where the communications infrastructure is limited or inoperable.
	Deployable MARS HF stations with HF voice and email capability	To support communications systems in areas where the communications infrastructure is limited or inoperable.
	VHF XTS5000 P25 radios	To support communications systems in areas where the communications infrastructure is limited or inoperable.
	700/800 MHz XTS5000 P25 radios	To support communications systems in areas where the communications infrastructure is limited or inoperable.
	Iridium sat telephones	To support communications systems in areas where the communications infrastructure is limited or inoperable.
	Cellular telephones	To support communications systems in areas where the communications infrastructure is

Entity	Resource	Use
		limited or inoperable.
Texas Parks and Wildlife Department	Radio Communications trailers	To support communications systems in areas where the communications infrastructure is limited or inoperable.

Summary of Responsibilities

This section specifies the responsibilities of stakeholders with capabilities during communications preparedness, response and recovery.

All State Emergency Management Council (SEMC) agencies and organizations that support state communications infrastructure are responsible for the tasks listed below.

Common Stakeholder Responsibilities

Use the following table to ensure all SEMC responsibilities are addressed.

Phase Task

Preparedness

- Determine staff requirements.
- Identify specific personnel who can fill extended emergency duty positions in the State Operations Center (SOC), Communications Coordination Group (CCG), agency emergency operation centers (EOCs), state medical operations center (SMOC), Disaster District emergency operations center, multi-agency coordination centers (MACCs), the Joint Field Office (JFO), field command posts, traffic control and/or reentry points. Ensure that the number of personnel identified is adequate.
- Train representatives in accordance with National Incident Management System (NIMS) requirements and ensure that these representatives are made aware of the capabilities of their parent organization to provide assistance and support and be prepared to provide recommendations.
- Ensure appropriate action guides and standard operating guides are developed and maintained.
- Develop and maintain contact lists and notification procedures.
- Develop lists of agency resources and update these lists at least quarterly; when these resources are paid for with federal funds, enter them into the Texas Regional Response Network (TRRN).
- Develop and maintain procedures for identifying, locating, committing, deploying and accounting for agency emergency support resources.

Response

- Assist with fulfilling intrastate and interstate mutual aid when possible.
- Provide situational and operational status reports in accordance with existing procedures and/or as requested by the primary agency.
- Support and coordinate accessibility and functional needs support services.

Stakeholder-Specific Responsibilities

Some stakeholders provide personnel and/or equipment, while others offer knowledge and expertise in working with response agencies, the vendor community, commercial organizations or associations that supply or restore services.

The following tables show stakeholder responsibilities organized by phase of emergency management. Stakeholders are listed in alphabetical order, with the lead agency listed first.

Lead Entity: DPS - Law Enforcement Support Division (LESD)

Phase	Task
Preparedness	 Develop, maintain, and distribute this annex, appropriate SOPs, and the Communications Support Function Action Guide. Provide 24-hour emergency radio support.
Response	 Dispatch DPS LESD radio-equipped vehicles to a disaster area to help determine the status of communications. Assess and report usage of mobile telephones, mobile command posts, communications trailers, satellite phones, DPS radio systems, TEWAS, and TLETS. Operate mobile command posts. These vehicles are dispatched to a disaster area to serve as field operation coordination-and-control centers and provide a communications link to the DPS communications system.
Recovery	 Order equipment necessary to sustain communications operations. Transition communications capabilities back to restored agency systems. Release and demobilize equipment and personnel.

Communications Coordination Group (CCG)

Phase		Task
Preparedness	•	Coordinate communications within the state of Texas, provide coordination and control of radio, cellular and satellite communications and maintain availability of mobile communications platforms.
Response	•	Dispatch radio-equipped vehicles to the disaster area to establish or augment emergency communications to support the DDC. These vehicles are dispatched to a disaster area to serve as field operation command and coordination centers and to provide a communications link. DPS operates mobile communications platforms and maintains deployable communications equipment which is strategically placed throughout the state as part of the Mobile Communications Command Program.

- Manage and provide staff as needed to the CCG. Use technological and operational subject matter experts to ensure operational success and meet the mission's communications needs.
- Track available state and local mobile communications platforms to provide rapid response for emergency communications.
- Coordinate requests for available state, local agency and privatesector partner communications assets with entities that have entered into a memorandum of understanding (MOU) with the CCG to provide personnel, mobile platforms, communications equipment and support when needed.
- Act as a liaison with other state support agency representatives while performing duties in the SOC or DDC during activations.
- Continue to assess the status of deployed communications resources for agency reports.

Recovery

- Order equipment necessary to sustain communications operation.
- Transition communications capabilities back to restored agency systems.
- Release and demobilize equipment and personnel.

Public Utility Commission of Texas (PUC)

Phase	Task
Recovery	 Obtain information regarding damage assessments to communications systems. Monitor the progress of telecommunications companies toward restoring service within the affected area(s). Work with SOC staff and impacted utilities to establish restoration priorities.

Texas A&M Engineering Extension Service (TEEX)

Phase		Task
Preparedness	•	Maintain the operational readiness of communications equipment and trained deployable personnel.
Response	•	Provide mobile and fixed-site communications equipment and support if available or not already committed to support TEEX/TX-TF1 missions.

Texas A&M Forest Service (TFS)

Phase	Task
Preparedness	 Incorporate communications unit leaders (COML) in the all hazards incident management teams, overseen and dispatched by the Texas A&M Forest Service (TFS). This includes peer review

- for qualifications and credentialing.
- Provide funding for mobile and base radios for the volunteer fire service, which must be capable of operating on interoperable frequencies.

Response

- Provide mobile and fixed-site communications support.
- Provide emergency radio technical support.
- Dispatch VHF radio and satellite radio/telephone-equipped vehicles to the affected area to help establish command and control and augment emergency communications.
- Operate mobile command posts. These vehicles are dispatched to a disaster area to serve as field operations coordination-andcontrol centers and provide a communications link to the DPS communications system.
- Help in assessment and reporting using telephones, vehicles, satellite radios/telephones, and the TFS and DPS radio systems.
- Support the Texas Intrastate Fire Mutual Aid System (TIFMAS) by dispatching resources and providing funding to purchase fire apparatus equipped with interoperable communications equipment. On deployment, TIFMAS resources include command vehicles equipped for interoperable communications.
- Provide support from four primary dispatch facilities in Henderson, LaGrange, Linden and Livingston.
- During wildfire response, staff temporary facilities at Abilene, Amarillo, Childress, College Station, Fort Stockton, Fredericksburg, Granbury, Greenville, Kingsville, Midland and San Angelo.
- Provide incident command post (ICP) with satellite communications.

Texas Commission on Environmental Quality (TCEQ)

Phase	Task
Response	 Provide radio support, if available and not previously committed to other missions. Support interoperable communications.

Texas Department of Criminal Justice (TDCJ)

Phase	Task
Response	Provide radio support, if available and not previously committed to other missions.

Texas Department of Information Resources (DIR)

Phase	Task		
Response	 Provide statewide leadership and oversight for management of government information and communications technology. Provide emergency purchasing procedures and personnel for state communications equipment and resources. 		

Texas Department of State Health Services (DSHS)

Phase	Task
Response	 Provide communications to DSHS health and medical teams deployed in a response. Coordinate and maintain Texas' participation in the Center for Disease Control and Prevention (CDC) Public Health Information Network (PHIN) and the National Public Health Radio Network to ensure 24-hour notification and public health and medical emergency response system alert. Establish communication links with impacted Health Service Regions and Regional Health and Medical Operations Centers (RHMOC).

Texas Department of Transportation (TxDOT)

Phase	Task	
Preparedness	Incorporate communications unit leaders (COML) and technicians (COMT) in incident management teams as needed and available based upon tasking for TxDOT use. This includes peer review for qualifications and credentialing.	
Response	Provide mobile and fixed-site communications support. Provide emergency radio technical support via COML and COML-certified personal. Dispatch VHF and regional radio system equipped vehicles and personnel, if available, to the affected area to help establish command and control and augment emergency communications. Provide high frequency, medium and long range voice and digital communications from district offices and mobile operations.	
Recovery	Assist the state wherever possible for restoration of public safety related communications.	

Texas Division of Emergency Management (TDEM)

Phase	Task	
Preparedness	 Generate EAS warnings directly to public. 	
Response	 As a supplement to state agency emergency communications, manage the state RACES program. Provide satellite phones or portable satellite systems as needed. Maintain FEMA National Radio System (FNARS). Maintain Secure Critical Warning Information Network (CWIN) DHS web portal. Monitor and distribute TLETS traffic. Maintain and operate NAWAS and TAWAS. Maintain and operate secure voice and data capabilities. 	

Texas General Land Office (TGLO)

Phase		Task	
Preparedness	•	Maintain operational readiness of communications networks and deployable equipment.	
Response	•	Provide mobile command trailer with communications equipment, if available and not responding to a major oil spill incident. Establish communication with the CCG for communications support in the field.	

Texas Health and Human Services Commission (HHSC)

Phase		Task
Preparedness	•	Assist in developing and maintaining state emergency plans.
Response	•	Provide SOC emergency management council members with information and reports as requested.

Texas Military Forces (TXMF)

Phase	Task		
Preparedness	 Maintain the operational readiness of the state of Texas Ku band satellite network and associated infrastructure. Conduct extensive annual training for all TXMF communications teams. Provide extensive annual maintenance and updating of all communications platforms and devices and repeaters. Conduct extensive internal training for the J6 Operations, Logistics, and Plans staff. Conduct extensive annual planning and exercises for communications support to TXMF task forces of up to 3000 		

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- Sustain two mobile command posts with robust communications systems.
- Effectively participate in all interagency communications planning and exercises.

Response

- Hosts the state CCG operation from Camp Mabry.
- Support the CCG with satellite communication force packages, MARS HF force packages, and mobile repeaters/sites.
- Support the CCG with network operations center located at Camp Mabry.
- Support the CCG with Tactical Refuel Force Packages for cell phone tower generators in the impact area.
- Deploy mobile command posts.
- Manage, control, direct and re-direct all deployed TXMF communications assets.
- Rotate communications teams in and out of the deployed task forces as required to maintain operations for extended periods.
- Resolve satellite network issues including failovers to alternate teleports when needed.
- Coordinate and manage bandwidth surge on the state satellite network when needed to support a large state response.
- Stream video for post incident damage assessment and other purposes.
- Integrate and direct all military communications assets into the response.
- Resolve all military spectrum and satellite issues.
- Provide Department of Defense spectrum, such as VHF repeater channels, when needed to support the state.
- Provide robust fixed site HF station capability at Camp Mabry as needed.

Recovery

Assist the state as directed.

Texas Parks and Wildlife Department (TPWD)

Phase		Task	
Preparedness	•	Maintain the operational readiness of communications networks and deployable equipment.	
Response	 Supply cell phones, satellite phones and VHF radio if called upo 		

Authority

Strategic planning guidance and authorities governing the enactment and implementation of this annex are summarized below.

The following table presents specific sources, their relevance to this document, and hyperlinks to their online location.

Source	Relevance	Link
Texas Government Code Chapter 418	Provides authority and mechanisms to clarify and strengthen key roles, as well as authorize and provide for cooperation and coordination of an emergency management system embodying all aspects of pre-disaster preparedness and post-disaster response.	http://www.statut es.legis.state.tx.us /Docs/GV/htm/GV. 418.htm
Texas Government Code Section 418.018	Describes the Texas Statewide Mutual Aid System.	http://www.statut es.legis.state.tx.us /Docs/GV/htm/GV. 418.htm#418.018
Texas Government Code Section 418.047	Provides authority for the Texas Division of Emergency Management to ascertain what means exist for rapid and efficient communication in times of disaster.	http://www.statut es.legis.state.tx.us /Docs/GV/htm/GV. 418.htm#418.047
Texas Government Code Section 418.050	Provides guidelines for reentry of areas previously evacuated because of a disaster or threat of disaster.	http://www.statut es.legis.state.tx.us /Docs/GV/htm/GV. 418.htm#418.050
Texas Government Code Section 418.051	Establishes the role of the Communications Coordination Group and member representatives.	http://www.statut es.legis.state.tx.us /Docs/GV/htm/GV. 418.htm#418.051
Texas Government Code Section 421.096	Cites the statewide radio interoperability administration authority.	http://www.statut es.legis.state.tx.us /Docs/GV/htm/GV. 421.htm#421.096
Executive Order 13618	Assignment of National Security and Emergency Preparedness Communications Functions.	https://www.white house.gov/the- press- office/2012/07/06/ executive-order- assignment- national-security- and-emergency- preparedness-

Maintenance and Change

This section describes the process by which this document is maintained and updated.

Development

Section 418 of the Texas Government Code defines TDEM as the responsible agent for emergency planning and coordination in the state of Texas. As such TDEM is responsible for ensuring the appropriate development and distribution of this document and any changes thereto. In addition each emergency management council agency is responsible for the development and maintenance of appropriate planning documents to address responsibilities assigned in this plan including standard operating guidelines.

Maintenance

TDEM authorizes and issues changes to this document until such time as it is superseded. This document and all attachments are living documents. Council member representatives are responsible for participating in plan reviews and are required to provide information concerning capability changes that impact their emergency management responsibilities.

TDEM coordinates the plan updating process and maintains the plan after receiving feedback and updates from partner agencies. According to Texas Government Code section 418.188 *Post Disaster Evaluation* state agencies, political subdivisions and interjurisdictional agencies are required to conduct an evaluation of their response to a disaster, identify areas of improvement, and issue a report of the evaluation to TDEM no later than 90 days after TDEM makes the request. That report may be translated into plan updates.

Training, Exercise and After Action Reports

The State of Texas Emergency Management Plan is exercised annually to provide practical, controlled and operational experience to those who have responsibilities. This requirement is applicable to the State Operations Center and each disaster district emergency operations center. Following the conclusion of any significant emergency, incident or exercise, lead agency representatives will conduct an after action report (AAR) of the group's activities during that emergency, incident or exercise. Support agencies will provide written or oral input and the lead agency representative will consolidate all inputs into a final written AAR.

Record Keeping

Lead and support agencies must ensure all records necessary for emergency management operations are obtainable, and that duplicate records are held at alternate locations.

Record of Changes

This section describes changes made to this document: when they were made, what they were, and who authorized them.

The table below shows changes made to the document following initial publishing.

Date	Description	Initials
	Date	Date Description

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This section provides a list of organizations and individuals who contributed to the development of this document.

This annex could not have been developed without the participation and collaboration of representatives from multiple organizations.

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This section provides a full list of the sources and references cited throughout this document.

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